

WHAT IS CLAIMED IS:

1. Apparatus for treating RPET particles containing dense contaminants, comprising:

5 a manifold having a midline and positioned within a chamber containing a fluidized bed, said manifold adapted to convey the fluidized bed therethrough;

10 a plurality of apertures in said manifold for directing a fluid from said manifold to the chamber, said apertures positioned below the midline of said manifold; and

15 a plurality of concave surface features on said manifold, said concave surface features positioned above the midline of said manifold, said concave surface features adapted to receive and retain dense contaminants from the fluidized bed.

20 2. The apparatus for treating RPET particles according to Claim 1, wherein the manifold comprises arcuate shaped tubes.

25 3. The apparatus for treating RPET particles according to Claim 1, wherein the concave surface features of said manifold have an arcuate shape.

4. The apparatus for treating RPET particles according to Claim 1, further comprising a removal device for removing dense contaminants from the concave surface features on said manifold.

5. The apparatus for treating RPET particles according to Claim 4, wherein the removal device comprises a series of augers.

5

6. The apparatus for treating RPET particles according to Claim 4, wherein the removal device comprises a series of plungers.

10 7. Apparatus for treating RPET particles containing dense contaminants, comprising:

a manifold having a midline positioned within a chamber containing a fluidized bed, said manifold adapted to convey the bed fluidized bed therethrough;

15

a plurality of apertures in said manifold for directing a fluid from said manifold to the chamber, said apertures positioned below the midline of said manifold;

20

a plurality of concave surface features on said manifold, said concave surface features positioned above the midline of said manifold, said concave surface features adapted to receive and retain dense contaminants from the fluidized bed; and

25

a removal device for removing dense contaminants from said concave surface features on said manifold.

8. The apparatus for treating RPET particles according to Claim 7, wherein the removal device comprises a series of augers.

5 9. The apparatus for treating RPET particles according to Claim 7, wherein the removal device comprises a series of plungers.